1. (Currently Amended) An anastomosis device for use in coupling a graft vessel to a side of a target vessel, the target vessel having an opening formed in a side wall thereof, the anastomosis device comprising:

a graft vessel having an end portion and a proximal portion;

a coupling member attached to the graft vessel, the coupling member being radially compressible to a compressed state for insertion of at least a portion of the coupling member and at least a portion of the end portion of the graft vessel into the opening of the target vessel, the coupling member being positionable within the opening of the target vessel when the coupling member expands from the compressed state to an expanded state, and wherein the proximal portion of the graft vessel extends outside the opening of the target vessel when the coupling member is in its expanded state.

2. (Previously Presented) The device of claim 1 wherein said coupling member is self-expanding.

3. (Previously Presented) The device of claim 1, comprising a tubular member attached to the coupling member, and wherein said tubular member further comprises a flexible tube.

4. (Original) The device of claim 3 wherein said flexible tube is made from an implantable biocompatible material.

5. (Original) The device of claim 4 wherein said biocompatible material comprises a plastic material.

6. (Previously Presented) The device of claim 3, wherein said tubular member further comprises a coil interposed between an inner and outer layer.

7. (Original) The device of claim 6 wherein said coil is formed from a biocompatible material.

8. (Original) The device of claim 7 wherein said biocompatible material is selected from a group consisting of stainless steel and nitinol.

9. (Original) The device of claim 7 wherein said biocompatible material is selected from a group consisting of plastic, polyurethane, and polycarbonate material.

10. (Original) The device of claim 6 wherein said inner and outer layers are formed from a low durometer plastic material.

11. (Original) The device of claim 10 wherein said plastic material is silicone.

12. (Previously Presented) The device of claim 1 wherein said coupling member is made from a biocompatible material.

13. (Original) The device of claim 12 wherein said biocompatible material comprises a non-metallic material.

14. (Original) The device of claim 13 wherein said non-metallic material comprises a foam material.

15. (Previously Presented) The device of claim 3 wherein said tubular member further comprises a flexible tube and wherein said coupling member is disposed about the tube, the coupling member having an inside diameter of between about 10 to 30 percent smaller than an inside diameter of the tube.

16. (Previously Presented) The device of claim 1 wherein an outside diameter of the coupling member in its expanded state is between about 10 to 80 percent larger than an inside diameter of the target vessel.

17. (Currently Amended) The device of claim ~~3~~ wherein an inside diameter of the tubular member is between about 0.5 mm to 6.0 mm.

18. (Previously Presented) The device of claim 3, wherein the graft vessel extends

longitudinally through the tubular member, a free end of the graft vessel being everted over and coupled to at least a portion of the coupling member.

19. (Previously Presented) The device of claim 18, wherein the graft vessel is coupled to the coupling member with one or more sutures.

20. (Original) The device of claim 1 further comprising an introducer having an outer diameter sized to permit insertion of the introducer through the opening in the side wall of the target vessel.

21. (Currently Presented) The device of claim 20, comprising a tubular member attached to the coupling member, and wherein the introducer has a groove formed in one end thereof through which a suture can be attached to the graft vessel and the tubular member.

22. (Original) The device of claim 21 wherein the introducer is configured to be pulled back and separated from the tubular member after the introducer is inserted at least partially into the target vessel through the opening in the side wall of the target vessel.

23. (Previously Presented) An anastomosis device for use in coupling an end of a graft vessel to a side of a target vessel, the target vessel having an opening formed in a side wall thereof for insertion of the device, the device comprising a tubular member, wherein the entire tubular member is radially compressible to a compressed state for insertion of the tubular member into the opening in the target vessel, and expandable from the compressed state to an expanded state for engagement of the graft vessel with an inner surface of the target vessel after insertion of the tubular member into the opening in the side wall of the target vessel, the compressible portion of the tubular member having an inner surface and an outer surface defining a wall thickness therebetween, the wall thickness of the compressible portion in its compressed state being less than the wall thickness of the compressible portion in its expanded state.

24-30 (Cancelled).

31. (Previously Presented) The device of claim 1, wherein the graft vessel comprises one of an artery, a vein, and a synthetic graft.

32. (Previously Presented) An anastomosis device for use in coupling an end of a graft vessel to a side of a target vessel, the target vessel having an opening formed in a side wall thereof for insertion of the device, the device comprising:

a tubular member having an inner layer and an outer layer, at least a portion thereof being radially compressible to a compressed state for insertion of the tubular member into the opening in the target vessel, and expandable from the compressed state to an expanded state for engagement of the graft vessel with an inner surface of the target vessel after insertion of the tubular member into the opening in the side wall of the target vessel, the compressible portion of the tubular member having an inner surface and an outer surface defining a wall thickness therebetween, the wall thickness of the compressible portion in its compressed state being less than the wall thickness of the compressible portion in its expanded state;

a coil interposed between the inner layer and the outer layer of the tubular member; and

wherein the inner layer and the outer layer are formed from a low durometer silicone.

33. (Previously Presented) An anastomosis device for use in coupling an end of a graft vessel to a side of a target vessel, the target vessel having an opening formed in a side wall thereof for insertion of the device, the device comprising

a tubular member, at least a portion thereof being radially compressible to a compressed state for insertion of the tubular member into the opening in the target vessel, and expandable from the compressed state to an expanded state for engagement of the graft vessel with an inner surface of the target vessel after insertion of the tubular member into the opening in the side wall of the target vessel, the compressible portion of the tubular member having an inner surface and an outer surface defining a wall thickness therebetween, the wall thickness of the compressible portion in its compressed state being less than the wall thickness of the compressible portion in its expanded state; and

wherein the tubular member further comprises a flexible tube and wherein the radially compressible portion comprises a coupling member surrounding the tube, the coupling

member having an inside diameter of between about 10 to 30 percent smaller than an inside diameter of the tube.

34. (Previously Presented) An anastomosis device for use in coupling an end of a graft vessel to a side of a target vessel, the target vessel having an opening formed in a side wall thereof for insertion of the device, the device comprising:

a tubular member, at least a portion thereof being radially compressible to a compressed state for insertion of the tubular member into the opening in the target vessel, and expandable from the compressed state to an expanded state for engagement of the graft vessel with an inner surface of the target vessel after insertion of the tubular member into the opening in the side wall of the target vessel, the compressible portion of the tubular member having an inner surface and an outer surface defining a wall thickness therebetween, the wall thickness of the compressible portion in its compressed state being less than the wall thickness of the compressible portion in its expanded state, and wherein the graft vessel may extend longitudinally through the tubular member, a free end of the graft vessel being everted over and coupled to at least a portion of the radially compressible portion of the tubular member.

35. (Previously Presented) The device of claim 34, wherein the graft vessel is coupled to the radially compressible portion of the tubular member with one or more sutures.

36. (Previously Presented) An anastomosis device for use in coupling an end of a graft vessel to a side of a target vessel, the target vessel having an opening formed in a side wall thereof for insertion of the device, the device comprising:

a tubular member, at least a portion thereof being radially compressible to a compressed state for insertion of the tubular member into the opening in the target vessel, and expandable from the compressed state to an expanded state for engagement of the graft vessel with an inner surface of the target vessel after insertion of the tubular member into the opening in the side wall of the target vessel, the compressible portion of the tubular member having an inner surface and an outer surface defining a wall thickness therebetween, the wall thickness of the compressible portion in its compressed state being less than the wall thickness of the compressible portion in its expanded state; and

an introducer having an outer diameter sized to permit insertion of the introducer through the opening in the side wall of the target vessel, the introducer having a groove formed in one end through which a suture can be attached to the graft vessel and the tubular member.

37. (Previously Presented) The device of claim 36, wherein the introducer is configured to be pulled back and separated from the tubular member after the introducer is inserted at least partially into the target vessel through the opening in the side wall of the target vessel.

38. (Currently Amended) A fastener for use in coupling a graft vessel to a side of a target vessel, the target vessel having an opening formed in a side wall thereof, the fastener comprising:

a graft vessel having an end portion and a proximal portion;

a coupling member attached to the graft vessel, the coupling member being radially compressible to a compressed state for insertion of at least a portion of the coupling member and at least a portion of the end portion of the graft vessel into the opening of the target vessel, the coupling member being positionable within the opening of the target vessel when the coupling member expands from the compressed state to an expanded state, and wherein the proximal portion of the graft vessel is outside the opening of the target vessel when the coupling member is in its expanded state.